

# EXPLOSIVES SAFETY

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Special Edition

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## TACTICAL VEHICLE TRANSPORTATION OF AMMUNITION AND EXPLOSIVES ON PUBLIC HIGHWAYS

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This bulletin is written in response to numerous inquiries received regarding the applicability of Department of Transportation (DOT) regulations concerning the transport of ammunition and explosives on tactical vehicles by active duty personnel. Although it is written in regard to ammunition and explosives, the article applies to transportation of any of the nine classes of hazardous materials as classified by the DOT.

The following references were used in the preparation of this article:

- a. AR 385-55, 12 March 1987, Prevention of Motor Vehicle Accidents.
- b. AR 55-355, 31 July 1986, Defense Traffic Management Regulation.
- c. AR 600-55, 31 December 1993, The Army Driver and Operator Standardization Program (Selection, Training, Testing and Licensing).
- d. Code of Federal Regulations (CFR) 49.
- e. Message, MTMC, 2413303Z, June 1993, subject: Hazardous Materials Transportation Regulation Update.
- f. Message, MTMC, 241530Z, June 1993, subject: Revision to DD Form 836.
- g. Draft DAP 385-64, August 1993, Ammunition and Explosives Safety Standards.

### **Applicability of DOT Regulations to Uniformed Military Personnel**

Uniformed military personnel are required to abide by the DOT regulations concerning the transport of ammunition and explosives on public highways (see below for explanation of a public highway), (reference a, paragraph 2-13a; reference b, paragraph 33-1b; and reference e paragraph 1a).

### **Training Requirements**

Uniformed personnel who have any part in the transportation of ammunition and explosives must have training. This includes not only those who drive the truck, but also those who certify the shipment, load the truck, pack the ammunition in the boxes, mark and label the ammunition boxes, or any other duty that could effect the transportation of ammunition and explosives (reference d, part 172.702(b); reference b, paragraph 33-7). Drivers of the vehicles must have training specified in reference c; paragraph 4-9b. Records of those who took the training must be maintained (reference b, paragraph 33-7c).

There are two levels of training:

**Certification Training** - This training is required for those who sign the certification statement on shipping papers (reference b, paragraph 33-7a(1)). This training can be obtained at the following Army approved schools:

- U.S. Army Defense Ammunition Center and School, Savanna, IL, DSN 585-8961.
- School of Military Packaging Technology, Aberdeen Proving Ground, MD, DSN 298-5185.

**Preparation and Handlers Training** - This training is required for all those (including uniformed military) who prepare or handle ammunition for shipment (reference b, paragraph 33-7b). This training can be obtained locally from commercial vendors or the commander can appoint someone to give the training. The local safety office should be able to provide information regarding commercially obtained training. If the commander chooses someone to give the training, it can be done by personnel that have attended certification training. Sources of Governmental video/computer-assisted training are:

- Idaho State Police, five video tapes (price \$10 per tape). Contact the Idaho State Police, MCSAP Video Section, 6027 Clinton, Boise, ID 83704, telephone (208) 884-7220.
- School of Military Packaging Technologies, Aberdeen Proving Ground, MD. This school has training kits which can be loaned to Army organizations. These kits include video tapes and student booklets. A memorandum must be sent requesting this course (number SMPT-5) and giving the number of booklets required. There is a limited number of training kits. The School of Military Packaging Technologies can be reached at DSN 298-2230.

## Public Highways

Public highways are normally any numbered or named federal, state, county, and local highways. However, a public highway could be any military installation road having unrestricted access by the general public. Roads that are restricted from the public are not public highways. DOT regulations apply on public highways. When uniformed personnel are driving tactical vehicles on public highways carrying hazardous materials (including ammunition and explosives), all aspects of the 49 CFR hazards communication section (part 172) applies. This means that tactical vehicles must have shipping papers (draft DD Form 836, Shipping Paper and Emergency Response Information for Hazardous Materials Transported by Government Vehicles Only), proper markings on the boxes, and labels and placards (if required). Some examples of how these rules affect the Army are:

a. A unit needs to transport training ammunition from an ammunition supply point (ASP) to a training range 40 miles away. The move will be made using 2-1/2 ton trucks. Public roads will be used in the move. In this example, the unit must comply with all aspects of the DOT regulation.

b. A unit draws ammunition in order to train on a range on the other side of the installation. It is a "closed post" but, in order to get to the other side of the installation, the unit must cross U.S. highway 44 which runs through the middle of the installation. Because this unit will be on a public highway (no matter how briefly), they must comply with DOT regulations. In this example, if the unit traveled over the highway by means of an military use only overpass (and not touched the public highway), DOT regulations would not apply.

c. A unit draws ammunition for training and proceeds to the training range on roads that are restricted from

the public. In this example, DOT regulations do not apply. Army requirements detailed in Chapter 7 of DAP 385-64 would apply.

d. A unit draws ammunition for training and proceeds to the range. The road near the ASP is restricted, however the roads to the range are not restricted and the installation is an "open post." There are no numbered or named highways on the installation. In this example, DOT regulations must be complied with. The public has access to those roads and could reasonably be expected to be on those roads. If the routes to be traveled are blocked by military police (MPs) and the general public is thereby restricted from using those roads, the DOT regulations would not apply (before any road is closed, coordination should be made with local civil authorities).

## Shipping Papers

When ammunition is transported on public roads, the ammunition must be identified in the shipping papers. Details on the requirements for shipping papers is contained in reference d, section 172.200. In general, the shipping papers must include a statement of quantity, a basic description, an emergency telephone number in case of spill or accident, and a certification that the ammunition items are correctly classified and packaged. Emergency response information must be included on or attached to the shipping papers. Draft DD Form 836 has recently been modified and can be used as a shipping paper (reference f). It is recommended that the draft DD Form 836 be used as a shipping paper (since it is designed for that use), although there is no specific format requirement for a military shipping paper. Whatever shipping paper is used, the ammunition items and/or hazardous materials must be identified IAW the requirements of reference d, part 172.200.

**Basic Description** - In general, the basic description for an ammunition item is the proper shipping name from table 172.101 of reference d, the hazard class/division (HC/D) and compatibility group letter, the UN identification number applicable to that proper shipping name, and the packaging group.

- **Proper Shipping Name** - This is the proper shipping name as obtained from reference d, table 172.101. The proper shipping name can be obtained by referring to the Joint Hazard Classification System (JHCS) data base and recording the UN identification number. The UN identification number can be cross referenced in the 49 CFR to obtain the proper shipping name. This name will probably not match the old DOT markings on the box or pallet.

- **Hazard Class/Division and Compatibility Group Letter** - Most explosives/ammunition items are hazard class 1 and divisions 1-6. Compatibility groups are letters. The official source of hazard class/division and compatibility group is the JHCS data base. These are also found in table 172.101 of reference d. Examples of these are 1.1D, 1.3G, 1.4S, etc.
- **UN Identification Number** - A UN Identification number is a four-digit number that is unique to that proper shipping name carrying that particular hazard division/compatibility group.
- **Packaging Group** - All ammunition items utilize packaging group II packages. For example, the basic description of a box of red smoke grenades would be:

**AMMUNITION, SMOKE**, 1.4G, UN 0303, PGII

**Note** : The proper shipping name of a hazardous material item must stand out from the rest of the document when a hazardous material is shipped with a non-hazardous material. It can be printed in boldface, underlined, or typed in a different color. We recommend the proper shipping name of any hazardous material stand out on all shipments.

**Emergency Telephone Number** - The emergency telephone number must be a number that is manned 24 hours a day by a person knowledgeable of the items being shipped. A single telephone number that can be used on shipping papers of ammunition and explosives is the Army Operations Center, (703) 697-0218/0219 (collect). This number is printed on the draft DD Form 836.

**Shipper's Certification** - The primary situation that this article was written for (uniformed personnel driving tactical vehicles on public highways) requires a shipper's certification to appear on the shipping papers (reference d, paragraph 172.204(a)). The draft DD Form 836, which can be used as a shipping paper, has the shipper's certification statement. The person who signs this statement must have the certification training described in *Training Requirements* above.

**Emergency Response Information** - Information concerning emergency actions is required to be present in case the tactical vehicle transporting ammunition is involved in an accident/fire. This information can be included in the body of the shipping papers or attached to the shipping papers on a separate piece of paper. An easy way to comply with this requirement is to provide a photocopy of the applicable page of the DOT's, "1993 Emergency Response Guidebook," (guide 46 deals with

HC/D 1.1, 1.2, 1.3, 1.5, and 1.6, guide 50 deals with HC/T 1.4).

## Container Markings

The proper shipping name and the UN identification number, both from reference d, table 172.101, are required to be displayed on the shipping and storage container (reference d, section 172.301(a)). A very large portion of the ammunition stocks have old DOT markings that do not correspond with the new DOT proper shipping name. The marking requirement to add the UN identification number was not a requirement until 1988, however, the DOT has granted an extension to the marking requirements. Currently, items can be transported that have old DOT markings provided these items were owned and packaged prior to 1 January 1988. In order to do so, the following statement must be added to the shipping papers: "Government-owned dangerous goods, packaged prior to 1 January 1988," (reference d, 173.62 e).

## DOT Labels

DOT labels are required on most packages of ammunition and explosives. Several items now require more than one label; smoke grenades require two (explosives 1.4G and corrosive) and tear gas grenades require three (explosives 1.4G, corrosive, and poison). The required labels for each proper shipping name are contained in reference d, table 172.101. In certain cases, DOT labels are not required when ammunition and explosives are transported by the Army (see reference d, 172.400a(a)(2)). However, in order to simplify the rules the use of DOT required labels is recommended.

## DOT Placards

A DOT placard is required when transporting any amount of HC/D 1.1, 1.2, or 1.3 ammunition and explosives. A DOT placard might be required for HC/D 1.4, 1.5, and 1.6 depending on the label requirements and amount of material being transported. The requirements for DOT placards are contained in reference d, section 172.500. Old DOT placards, with Explosives "A" and "B" may be used until 1 October 2001, but are not recommended. A placard substitution table can be found in reference d, paragraph 171.14(c)(2).

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